

**WE CLAIM:**

1. A process for producing herbicides from a fungus *Alternaria alternata* f.sp. *lantanae* deposited as a pure culture as ITCC-4896 which comprises in steps culturing the fungus in a liquid broth, subjecting the broth to the step of filtration to separate the broth containing phytotoxins from mycelium extraction the phytotoxins from said broth to obtain the phytotoxins, subjecting the phytotoxins to the step of chemical characterization.
2. A process as claimed in claim 1 wherein the pure fungus is grown on a known nutrient for a period of, for example, 7 days.
- 10 3. A process as claimed in claim 1 wherein discs of the inoculum comprising the culture were prepared aseptically.
4. A process as claimed in claim 3 wherein the inoculum was inoculated into a liquid medium and growth was allowed for a period of 20 to 30 days under static conditions.
- 15 5. A process as claimed in claim 3 wherein the discs having the inoculum were of 3 to 12 mm and preferably 5 to 8 mm.
6. A process as claimed in claims 1 to 5 wherein the inoculated broth after growth is subjected to the step of filtration under vacuum to separate the mycelium from the cell free filtrate.

7. A process as claimed in claim 8 wherein the pH of the cell free filtrate is adjusted to a pH 2 to 3 and conamferated to 40-60% of original volume under vacuum to produce a concentrated brown viscons mass.

5 8. A process as claimed in claim 7 wherein the brown viscons mass is subjected to repeated steps of solvent extraction to produce a solvent layer and an oily layer.

10 9. A process as claimed in claim 8 wherein the solvent layer containing a first active compound is evaporated under vacuum at a temperature of 30 to 35°C to produce a yellowish oily resudue having phytotoxic acitivity, subjecting said residue to chemical characterization.

10. A process as claimed in claim 8 wherein the oily layer is subjected to subsequent extraction by a solvent, such as ethylacetate to produce a solvent layer and an oily residue.

15 11. A process as claimed in claim 10 wherein the solvent layer containing the two other active compounds with phytotoxic activity is subjected to the step of evaporation at a temperature of 30 to 35°C under vacuum to produce a residue, which is subjected to the step of chemical characterization.

20 12. A process as claimed in claim 8 wherein the solvent used in the step of solvent extraction is selected from polar and non polar solvents, preferably being chloroform.

13. A process as claimed in claim 6 wherein the mycelium is ground and formulated as a water spray for a weedicide.